

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re U.S. Patent Application of )  
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BRASSIL *et al.* )  
 )  
Application Number: To be Assigned )  
 )  
Filed Concurrently Herewith )  
 )  
For: HIGH DATA RATE COMMUNICATION )

Honorable Assistant Commissioner  
for Patents  
Washington, D.C. 20231

**PRELIMINARY AMENDMENT**

Sir:

Prior to an examination on the merits, please amend the above-captioned application as follows:

**IN THE CLAIMS:**

Please replace the below claims as follows:

1. (Amended.) A method of transferring data between a first communications device and a second communications device, the second communications device having a first transceiver for communication at a first data rate over a long range, and a second transceiver for communicating at a second, higher data rate over a short range, the method comprising the steps of forming a co-ordinated short-range network using the second communications device and a plurality of other similar communications devices, transferring a portion of said data to or from the first communications device from or to each of said second communications device and said other communications device using their first transceivers, and transferring said data portions between said other communications devices and the second communications device using their second transceivers.

3. (Amended.) A method as claimed in claim 1, wherein the second data rate is higher than the first data rate by a factor of two or more.

4. (Amended.) A method as claimed in claim 1, wherein each second transceiver operates in accordance with the wireless networking protocol IEEE802.

5. (Amended.) A method as claimed in claim 1, wherein the first transceiver of each of the second communications device and said other communications devices is such as to communicate with the base station of a cellular telecommunications network, and wherein the first communications device is also arranged to communicate with the base station.

9. (Amended.) A method as claimed in claim 1, wherein the second communications device transfers portions of data to be sent to the first communications device to each of a plurality of said other communications devices by means of its second transceiver and their second transceivers, the second communications device instructs said other communications devices to transmit said data portions to the first communications device, and the second communications device transmits the remaining portion of the data to the first communications device.

12. (Amended.) A system as claimed in claim 10, wherein the transceivers are such that the second data rate is higher than the first data rate by a factor of two or more.

13. (Amended.) A system as claimed in claim 10, wherein each second transceiver operates in accordance with the wireless networking protocol IEEE802.

14. (Amended.) A system as claimed in claim 10, further comprising a base station of a cellular telecommunications network, the first transceivers of the second communications devices being arranged to communicate with the base station, and the first communications device being provided with a transceiver for communication with the base station.

18. (Amended.) A system as claimed in claim 10, wherein a given second communications device is arranged to transfer portions of data to be sent to the first communications device to each of a plurality of the other second communications devices by

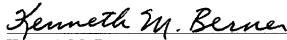
means of its second transceiver and their second transceivers, the given second communications device being such as to instruct said other second communications devices to transmit said data portions to the first communications device, and such that the given second communications device transmits the remaining portion of the data to the first communications device.

**REMARKS**

Applicants have amended the claims in order to remove the multiple dependencies contained therein and thereby reduce the basic filing fee. No new matter has been added to the application as a result of this amendment. For the convenience of the Office, a copy of the claims showing the amendments is attached hereto.

Prompt and favorable action on the merits of this application is earnestly solicited. Kindly direct any inquiries to the undersigned at the below-listed address and telephone number.

Respectfully submitted,



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**Preliminary Amendment - APPENDIX [MARKED UP VERSION]**  
**Claims**

1. A method of transferring data between a first communications device and a  
5 second communications device, the second communications device having a first  
transceiver for communication at a first data rate over a long range, and a second  
transceiver for communicating at a second, higher data rate over a short range, the  
method comprising the steps of forming a co-ordinated short-range network [piconet]  
using the second communications device and a plurality of other similar  
10 communications devices, transferring a portion of said data to or from the first  
communications device from or to each of said second communications device and said  
other communications device using their first transceivers, and transferring said data  
portions between said other communications devices and the second communications  
device using their second transceivers.
- 15 2. A method as claimed in claim 1, wherein each of the second communications  
device and said other communications devices is a mobile telecommunications device.
3. A method as claimed in claim 1 [or claim 2], wherein the second data rate is  
20 higher than the first data rate by a factor of two or more.
4. A method as claimed in claim 1 [any one of claims 1 to 3], wherein each second  
transceiver operates in accordance with the wireless networking protocol IEEE802.
- 25 5. A method as claimed in claim 1 [any one of claims 1 to 4], wherein the first  
transceiver of each of the second communications device and said other  
communications devices is such as to communicate with the base station of a cellular  
telecommunications network, and wherein the first communications device is also  
arranged to communicate with the base station.
- 30 6. A method as claimed in claim 5, wherein the first communications device  
includes a server which is arranged to instruct the base station to transfer respective

data portions to each of said second communications device and said other communications devices.

7. A method as claimed in claim 6, further comprising the step of multiplexing  
5 said data portions at the second communications device.

8. A method as claimed in claim 7, wherein the server requests a stream of data from a data provider in packets, and the server instructs the the base station to route each data packet to a respective one of the second communications device and said  
10 other communications devices, the totality of the packets routed to a given second or other communications device constituting the data portion transferred to that communications device.

9. A method as claimed in claim 1 [any one of claims 1 to 4], wherein the second  
15 communications device transfers portions of data to be sent to the first communications device to each of a plurality of said other communications devices by means of its second transceiver and their second transceivers, the second communications device instructs said other communications devices to transmit said data portions to the first communications device, and the second communications device transmits the  
20 remaining portion of the data to the first communications device.

10. A data transfer system comprising a first communications device and a plurality of second communications devices, each of the second communications devices having a first transceiver for communication with the first communications  
25 device at a first data rate over a long range, and a second transceiver for communicating with other second communications devices at a second, higher data rate over a short range, wherein means are provided for co-ordinating the second communications devices for transferring data to be communicated between the first communications device and a given second communications device so that a respective  
30 portion of said data is transferred between each of said second communications devices and the first communications device using the first transceivers of said second communications devices, and transferring said data portions between said second communications devices using their second transceivers.

11. A system as claimed in claim 10, wherein each of the second communication devices is a mobile telecommunications device.
- 5 12. A system as claimed in claim 10 [or claim 11], wherein the transceivers are such that the second data rate is higher than the first data rate by a factor of two or more.
13. A system as claimed in claim 10 [any one claims 10 to 12], wherein each  
10 second transceiver operates in accordance with the wireless networking protocol IEEE802.
14. A system as claimed in claim 10 [any one claims 10 to 13], further comprising a base station of a cellular telecommunications network, the first transceivers of the  
15 second communications devices being arranged to communicate with the base station, and the first communications device being provided with a transceiver for communication with the base station.
15. A system as claimed in claim 14, wherein the first communications device  
20 further comprises a server which is arranged to instruct the base station to transfer respective data portions to each of second communication devices.
16. A system as claimed in claim 15, wherein a given second communications device comprises means for multiplexing all said data portions.
- 25 17. A system as claimed in claim 15, further comprising a data provider for sending data to the server in packets, the server being such as to instruct the data provider to label each data packet for transmission by the base station a respective one of the second communications devices, the totality of the packets labeled for a given  
30 second communications device constituting the data portion transferred to that communications device.

18. A system as claimed in claim 10 [any one of claims 10 to 13], wherein a given second communications device is arranged to transfer portions of data to be sent to the first communications device to each of a plurality of the other second communications devices by means of its second transceiver and their second transceivers, the given  
5 second communications device being such as to instruct said other second communications devices to transmit said data portions to the first communications device, and such that the given second communications device transmits the remaining portion of the data to the first communications device.

10 19. A method of transferring bandwidth to and from a communications device having first and second transceivers, the first transceiver being a long-range, low data rate transceiver, and the second transceiver being a short-range, high data rate transceiver, the method comprising utilising the first and second transceivers of similar communications devices situated within a short range network served by the second  
15 transceivers of the communications devices, the data to be transferred to or from said communications device being transferred in portions between the communications devices using the second transceivers, and to and from a further communications device using the first transceivers of the communications devices.